REMARKS

Reconsideration of this application, as amended, is respectfully requested.

Claims 1, 2, 5-10 and 15 are pending in the application, with Claims 1 and 8 being the independent claims.

The Examiner rejected Claims 1, 2, 5-10 and 15 under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 7,461,164 to *Edwards et al.* (hereinafter, *Edwards*) in view of *Baiocchi et al.*, IP QoS Delivery in a Broadband Wireless Local Loop: MAC Protocol Definition and Performance Evaluation, IEEE Journal on Selected Areas in Communication, Vol. 18, No. 9, September 2000, (hereinafter, *Baiocchi*).

Regarding the §103(a) rejection, the Examiner contends that each element of the claims is taught, suggested or rendered obvious by the combination of *Edwards* and *Baiocchi*. Specifically, the Examiner contends that *Edwards* teaches or suggests each element of Claim 1 with the exception of an admission controller and a PDU maker for generating PDUs from the data packets given the first priorities. The Examiner cites *Baiocchi* in an attempt to remedy these deficiencies.

Claim 1 has been amended to more clearly recite the subject matter of the present invention. Specifically, Claim 1 has been amended to further define the second priorities and the functions performed by the second priority controller, as suggested by the Examiner in the Advisory Action of September 1, 2011.

Amended Claim 1 recites that a first module comprises a classifier for identifying a type of packet traffic and classifying data packets corresponding to the packet traffic according to the QoS policy stored in the QoS profile. The first module also comprises an admission controller for determining admission or discarding of the classified data packets provided from a plurality of QoS queues based on a current call state and characteristics of the classified data packets. A

second module comprises a second priority controller for determining data packet types of the PDUs based on headers or an identifier of the PDUs and determining second priorities of the PDUs based on the determined data packet types and a predetermined priority policy that predetermines priorities of data packets according to a data packet type. The packet information is based on a header or an identifier of a corresponding data packet. The second module also comprises a sorting queue for storing the PDUs based on the second priorities of the PDUs assigned by the second priority controller. The second module further comprises a transmitter for arranging the PDUs given the second priorities in an allocated bandwidth to transmit the PDUs. The first module is constructed in a MAC layer by software and the second module is constructed in the MAC layer by hardware. The first module further comprises the plurality of QoS queues for dividing and storing the data packets classified by the classifier, and a plurality of priority queues for dividing and storing the data packets admitted by the admission controller based on their priorities. The classifier identifies the type of packet traffic and stores a data packet of the packet traffic in one of the plurality of QoS queues based on a QoS policy corresponding to the identified type. The admission controller stores the data packet, which is determined for admission, in one of the plurality of priority queues and discards data packets that have a degree of importance lower than a predetermined degree based on a network state. The type of packet traffic comprise s at least one of audio data and burst data.

Edwards discloses a MAC architecture for WLAN stations. Specifically, *Edwards* describes that a first software module prioritizes data packets and writes the data packets to queues of a second hardware module based on these priorities. A transmit logic of the second hardware module controls removal of the packets from the queues in accordance with assigned priorities of the queues. Processing in the second hardware module may also be based on QoS designations of the packets. The first software module may also construct a command structure of each packet, which the second hardware module may parse to attain processing instructions relating to transmission from the queues in a prioritization scheme.

The Examiner contends that the second hardware module may determine what may be considered "the second priorities" from the command structure of each packet. The second

priorities determined from the command structure are used in the removal of data packets from the queues of the second hardware module. *Edwards* describes that the writing of data packets to queues of the second hardware module is based on the first priorities determined at the first software module. Thus, *Edwards* fails to disclose the determining of data packet types of the PDUs based on headers or an identifier of the PDUs, the determining of the second priorities based on the determined data packet types and a predetermined priority policy, and the storing of data packets in a sorting queue of the second module based on these second priorities determined at the second module, as recited in Claim 1.

The Examiner continues to cite a portion of *Edwards* describing that a wireless communication network may be used to communicate data and voice between devices according to a variety of different formats. However, this portion of *Edwards* fails to provide any disclosure indicating that the first software module identifies the type of traffic (audio data or burst data), as recited in Claim 1. Further, *Edwards* fails to provide any disclosure relating to a QoS policy that corresponds to the type of traffic. Specifically, *Edwards* fails to disclose that data packets corresponding to the identified type of packet traffic (audio data or burst data) are classified and stored in one of a plurality of QoS queues based on the QoS policy corresponding to the identified type of packet traffic in the QoS profile, as recited in Claim 1.

The Examiner also cites a portion of *Edwards* describing that the software-based MAC component may have a number of virtual queues to assist QoS functions prior to transmission of packets to the hardware-based MAC component. *Edwards* also describes transmit queues 36 and 38 of the hardware-based MAC component. However, *Edwards* fails to disclose that the software-based MAC component includes a plurality of QoS queues for dividing and storing classified data packets AND a plurality of priority queues for dividing and storing data packets admitted by an admission controller based on priorities, as recited in Claim 1

The Examiner asserts that *Baiocchi* discloses generating PDUs, the classification of packets in to a first set of queues, and the accepting/dropping of classified packets. However,

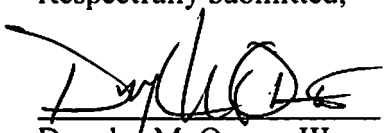
Baiocchi fails to remedy the deficiencies of *Edwards* described above. Therefore, amended Claim 1 is patentable over the combination of *Edwards* and *Baiocchi.*

The Examiner also rejected independent Claim 8 under 35 U.S.C. §103(a). Claim 8 has been amended in a manner similar to that of Claim 1. In view of the above, amended Claim 8 is also patentable over the combination of *Edwards* and *Baiocchi.*

Regarding Claims 2, 5-7, 9, 10 and 15, while not conceding the patentability of the dependent claims, *per se*, Claims 2, 5-7, 9, 10 and 15 are also patentable for at least the above reasons. Accordingly, Applicants assert that Claims 1, 2, 5-10 and 15 are allowable over the combination of *Edwards* and *Baiocchi*, and the rejection under 35 U.S.C. §103(a) should be withdrawn.

Accordingly, all of the claims pending in the Application, namely, Claims 1, 2, 5-10 and 15 are believed to be in condition for allowance. Should the Examiner believe that a telephone conference or personal interview would facilitate resolution of any remaining matters, the Examiner may contact Applicants' attorney at the number given below.

Respectfully submitted,



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